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This project aims to enhance the capacity of the Air Force (AF) to reduce death, injury, and degraded force readiness via reduction of the prevalence and impact of family maltreatment, suicidality, and alcohol/drug problems. Managing risk and increasing resilience in military human resources (i.e., "Force Health Protection") is a top priority for DoD and Armed Forces leadership. The objective of this study is to enhance the AF's current prevention delivery (known as the Integrated Delivery System; IDS) infrastructure through (a) development and validation of an information system needed to direct prevention efforts more effectively and efficiently; (b) adoption of a prevention-science-based approach; and (c) evaluation of its effectiveness. When funded, the proposed project was broken into two phases. This first phase is a demonstration project on which to build a randomized trial. This project includes: (a) pilot testing the development of an innovative surveillance system and validating its accuracy (at 3 AF bases) for family maltreatment, suicidality, and problematic alcohol and drug use, and (b) pilot testing the creation of an enhanced IDS by training community leaders in prevention-science-based intervention methodology and testing the impact on factors that are prerequisites for effective community prevention initiatives and on targeted outcomes.

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INTRODUCTION:

This project aims to enhance the capacity of the Air Force (AF) to reduce death, injury, and degraded force readiness via reduction of the prevalence and impact of family maltreatment, suicidality, and alcohol/drug problems. Managing risk and increasing resilience in military human resources (i.e., "Force Health Protection") is a top priority for DoD and Armed Forces leadership. The objective of this study is to enhance the AF's current prevention delivery (known as the Integrated Delivery System; IDS) infrastructure through (a) the development and validation of a information system needed to direct prevention efforts more effectively and efficiently; (b) the adoption of a prevention-science-based approach; and (c) the evaluation of its effectiveness. When funded, the proposed project was broken into two phases. This first phase is a demonstration project on which to build a randomized trial. This project is meeting the objectives by: (a) pilot testing the development of an innovative surveillance system and validating its accuracy (at 3 AF bases) for family maltreatment, suicidality, and problematic alcohol and drug use, and (b) pilot testing the creation of an enhanced IDS by training community leaders in prevention-science-based intervention methodology and testing the impact on factors that are prerequisites for effective community prevention initiatives and on targeted outcomes.

BODY:

Year 2 (Months 13-24)

Task 1: Provide technical assistance to IDS teams at pilot bases in implementing action plans systematically monitor impact, and adjust implementations accordingly

Task 1 has been completed successfully. Orientation and training materials have been revised. Base leadership assessments are currently being completed at this time and should be completed by the end of March 2005. Bases were revisited in summer 2004 and maintain weekly telephone support with the Stony Brook POC to ensure continued success. These activities are described in detail next.

NORTH STAR Pilot Implementation to Date
Pilot at First Thee Bases (Oct-03 – Mar-05)

Briefings and First-Step Activities

The first three volunteer bases (Barksdale, Shaw and Tyndall) received their CA+ data and their NORTH STAR on-site training in Oct-Nov 2003. The exact itinerary of each visit was tailored to the individual desires and protocols of the local base, although visits generally consisted of an in-brief to the key leaders and/or the CAIB, 1.5 days of training with the IDS, and an out-brief to the CAIB. The training is encapsulated in the attached product: *NORTH STAR Training Manual.*

At the end of the initial training all three bases had completed the first several steps of NORTH STAR (i.e., prioritizing target problems and risk/protective factors based on their data and identifying possible activities to implement from the Guidebook) and were in the process of investigating/selecting activities and developing a community action plan. Table 1 provides an overview of these results for these bases as well as Kadena AB, the fourth pilot

base which received its training in Feb 05.

Table 1. *Results of Base IDS Team NORTH STAR Prevention Planning Process*

Base	Prioritized problems	Risk/Protective Factors Targeted	Evidenced Based Prevention Activities
Shaw AFB (Air Combat Command)	• Alcohol problems • Suicidality • Spouse emotional abuse • Child physical abuse • Child neglect	• Depressive symptomatology • Personal coping • Family coping	• Triple P • Feeling Good • Stress and the Healthy Mind
Barksdale AFB (Air Combat Command)	• Alcohol problems • Suicidality • Spouse emotional abuse	• Depressive symptomatology • Personal coping • Family coping • Relationship satisfaction	• Feeling Good • PREP • CCET
Tyndall AFB (Air Ed. & Training Command)	• Alcohol problems • Suicidality • Spouse emotional abuse • Child abuse & neglect	• Family coping • Workgroup cohesion • Depressive symptomatology • Relationship satisfaction	• Feeling Good • Triple P • Common Sense Parenting
Kadena AB* (Pacific Air Forces) * Feb 05 Training	• Child Neglect • Alcohol Abuse • Suicidality	• Depressive symptomatology • Parent-child relationships • Financial stress	• Feeling Good • Incredible Years Parenting Program • Financial Education

Follow-Up Consultation Visits

In July-04 – August-04 members of the Stony Brook NORTH STAR team made follow-up consultation visits to the three pilot bases. Each of these visits consisted of two days of training for the IDS Teams and an out-brief to the CAIB. At each base the IDS Team received one-half day training consisting of IDS overview and NORTH STAR review for new IDS members and a one and one-half day training focused on base-specific implementation issues as well as monitoring and evaluation planning. These base consultation visits proved extremely valuable in identifying implementation challenges (gaps, limitations and shortcomings) faced by the IDS service providers. Actions taken to resolve these problems served as important lessons learned in structuring and adjusting the NORTH STAR prevention training for the fourth pilot at Kadena AB.

Progress was limited between Oct-03 – Jul-04. Although the three pilot bases engaged in ongoing research and planning for implementation of the selected activities, only one program, Triple P at Shaw, was implemented. One common theme was the lack of a clearly defined, detailed plan that included milestones and timelines. Responsibilities were not clearly delineated and accountability to CAIB was limited. Each base experienced difficulty in obtaining funding resources.

The primary focus for the 2004 consultation visits was to address the limited progress in implementing activities selected at the initial training eight months earlier. The earlier training provided "implementation considerations" for each of the identified activities, but did not engage the IDS Teams in identifying POCs responsible for each activity; nor in

developing specific tasks and milestones; nor in establishing estimated completion dates. That training assumed, mistakenly, that IDS Teams would establish these systems of structure and accountability to guide the implementation of each activity. As this assumption became evident, modifications were made to the training protocol to increase the detail and specificity of implementation plans and to ensure tasks, milestones and POCs were identified.

During the 2004 consultation visits another barrier to implementation became apparent. IDS teams were operating almost in isolation, disconnected from the community. No sponsor, champion or advisor from senior leadership was monitoring the IDS. Team members were earnestly working but without the involvement or connection to other community stakeholders, in particular the CAIB, the community board of directors to whom they ultimately reported. At none of the bases was the CAIB engaged in an active, oversight, guidance role. The IDS demonstrated cross-agency collaboration, but were working in isolation from leadership, command structure and the community. In terms of the Communities That Care (CTC) model, they were engaged in stage 3, "strategic plan development," without capitalizing on the broad-based community coalition that existed. In particular, they were not optimizing their relationship with the community board, the CAIB.

- *Summary: Lessons learned from initial 9 months of implementation at initial bases:*
  - Long latency period between IDS activities; delays in implementing activities
  - Inequitable distribution of work/labor
    - Often the IDS Chair assumed too much responsibility
    - Limited delegation or sharing of IDS workload
    - Lack of involvement of other community stakeholders
  - Limited CAIB and senior leadership involvement and oversight
    - Limited accountability to the CAIB
    - Limited CAIB involvement and commitment to IDS plan
  - Difficulties and/or delays in obtaining funding for activities
    - Lack of knowledge and sophistication by IDS on budget and resource issues
    - Limited CAIB involvement and commitment to IDS plan

Current Status

These bases have demonstrated significant progress since the summer-04 consultation visits. Shaw AFB has added a *Feeling Good* prevention initiative administered universally through its Preventive Health Assessment (PHA) to go along with Triple P, which has been running since July 04. Barksdale AFB has implemented *Feeling Good* as a unit-based program in partnership with squadrons and is offering PREP as its second prevention initiative. Tyndall AFB has implemented *Feeling Good* through key community influentials including medical group members and the First Sergeants of each squadron. Tyndall is still working funding issues in order to implement Triple P. Monitoring and evaluation efforts have been designed and are being put in place for each of these programs as they are implemented. The Stony Brook NORTH STAR consultant, Col. (ret.) John Nelson, continues to work with each installation on these activities as well as on developing and implementing strategies to increase the ongoing oversight involvement of the CAIB.

Kadena AB (fourth pilot base)

In 2004, Kadena AB volunteered as a pilot NORTH STAR base in response to base leadership concerns regarding increases in problem behaviors. Modifications to the training

protocol for Kadena were made based on lessons learned from experiences at the initial three pilot bases. In addition to working closely with the IDS chair to set up the training, the NORTH STAR team established a working relationship with a senior member of the Kadena CAIB in order to reinforce the link between the IDS training and the CAIB oversight. The senior leader was pre-briefed on the NORTH STAR data, vetted the training plan and served as a link between the IDS and the CAIB. The Stony Brook team scheduled a visit to Kadena. On the first day, the Vice Wing Commander, the senior member liaison, and other key members of the CAIB were pre-briefed on the NORTH STAR data, the training plan, and the expectations for the CAIB (to include potential resource requirements) as well as for the IDS. The Kadena IDS team then received three days of training and sub-committee work toward developing their own community action plan. On the last day the IDS Team briefed the CAIB on its recommendations and implementation plans developed during the training. Pacific Air Forces, sent an observer to provide MAJCOM perspective and oversight. This proved to be a nice bit of serendipity as the MAJCOM presence fostered increased dialogue between the base and the MAJCOM and further established lines of accountability, from the base CAIB to the MAJCOM CAIB.

- *Lessons Learned: modifications and additions to the NORTH STAR prevention training protocol for Kadena AB.* The NORTH STAR experience at the first three bases fits the old military adage "No plan survives first contact with the enemy." The entire point of the PRMRP-funded pilot was to put NORTH STAR in the field and make any modifications necessary before launching a more extensive RCPT. We learned from the less-progress-than-desired first 9 months at the initial 3 NORTH STAR bases and made the following changes to our training strategy, one that resulted Kadena AB getting out of the blocks much faster (and more in keeping with the original NORTH STAR timeline):
  - Involve senior leadership from the start. Identify and recruit a senior leader (CAIB member) to oversee and approve 'work' with the IDS chair
  - Expand CAIB oversight by clearly identifying its role as the "community board"
  - Build in accountability of IDS to the CAIB, base community and the parent MAJCOM
  - Expand the initial training to three days so that IDS Team develops a complete, comprehensive plan
  - Provide more structure and guidance within each section of training to maximize its efficiency and effectiveness
  - Expand the Implementation Planning training section to ensure key tasks and milestones, POCs, and estimated completion dates are identified and with a specific roadmap to guide implementation
  - Encourage IDS to appoint sub-committees for each activity to be implemented with a clearly designated POC
- *Current status at Kadena AB*

  Four weeks post-training Kadena has active subcommittees working each of its three selected activities. The financial education activity has been implemented. The bibliotherapy activity *Feeling Good,* will be implemented in one squadron on a demonstration basis by mid-March; a community-wide subcommittee (involving base AF and tenant Army representatives, as well as Department of Defense Dependents Schools representatives) is meeting weekly and making plans to initiate a multi-tiered

parenting information program based on *The Incredible Years*. Initial aspects of this program will roll-out in April-05, eight weeks after training.

Task 2: Develop and validate algorithms

- *Develop and crossvalidate 22 algorithms (Months 13-16)*
  We have developed and crossvalidated the 22 algorithms.
- *Bootstrap confidence intervals for 22 algorithms (Months 15-18)*
- *Compare accuracy of using (a) correction factors on separate algorithms vs. (b) global algorithms (Months 18-21).*
  As reported in our 2004 Annual Progress report, there was a delay in the original project's outline — the administration of the CA was delayed until May, 2003 (almost 3 months behind schedule) and the AF maintained the survey in the field longer than originally scheduled. The project timelines have been pushed back accordingly. Thus, algorithm derivation is on target with the revised timeline. We are in the process of bootstrapping confidence intervals for the 22 algorithms (which will allow their accuracies to be determined and compared using (a) correction factors on separate algorithms vs. (b) global algorithms). This work was expected to be complete by month 21. We now expect it will be complete by month 25.

Note: The reviewers of our previous progress report expressed concern for the low response rates and the implications to the future success of the project. We will answer this concern below, first as a broader issue of research methods, and then specifically for the 2003 CA. Note that the AD response rate was 61%, quite good considering that no incentives were provided. The spouse response rate of 24% likely generated the reviewers concerns.

Global research concepts

All research contains some sources of error. The error varies in terms of its impact on generalizability. The more error in the data, the less confident one can be that the results are representative of the population. As described by Dillman (2000), there are several sources of error in every survey:

- "*Coverage error* results from every unit in the survey population not having a known, non-zero chance of being included in the sample" (Dillman, 2000, p. 196). Example: those who PCS to or from a base being erroneously included or omitted from the sampling frame.
- "*Sampling error* is the result of collecting data from only a subset, rather than all, of the members of the sampling frame" (Dillman, 2000, p. 196). This is an element of any study where 100% of the *population* does not participate. The sampling error is related to the sample size and is expressed in terms of confidence intervals. As mentioned below, however, the sampling error derived from equations is not an independent measure of the generalizability of the results.
- "*Nonresponse error*" [is the result of those] who respond to the survey being different from [those] who did in a way relevant to the study" (Dillman, 2000, p. 197). Example: Spouses who took the time to respond to the 2003 AF CA may be different from those who did not.

The standard rule-of-thumb is that a 70% response rate is necessary to infer generalizability[1]. However, such standards ignore that missing data is only a threat if it is not missing completely at random.

Recent research on nonrespondents (see Rogelberg et al., 2003) indicates that there are two forms of nonresponse: active nonresponse (i.e., refusal) and passive nonresponse (i.e., "the nonrespondents may have wanted to return the survey, but because of circumstances or happenstance, could not or did not;" Rogelberg et al., 2003, p. 1105). Empirical studies have indicated that active nonresponse is not as frequent as feared — somewhere between 9% and 16% (Rogelberg et al., 2000, 2003; Sosdian & Sharp, 1980, Youssefnia, 2000).

Active nonrespondents

As expected, Rogelberg et al., 2003 found that active nonrespondents, compared to respondents, were less satisfied with the organization and scored lower on compliance on a personality measure. "However, the fact that some dissatisfied people did respond shows that dissatisfaction alone is not sufficient for active nonresponse... Dissatisfaction with the survey sponsoring entitity is one of a number of drivers that independently and interactively led to an individual actively withholding his or her participation. It may be the case that the active nonrespondent's dissatisfaction with the [organization leadership] in conjunction with other individual differences (e.g., skepticisms about survey research, sensitivities to anonymity and privacy issues) leads the potential respondent to conclude, Why would I complete a survey, which I don't really believe in or trust, for an organizational entity that I am not pleased with?" (Rogelberg et al., 2003, p. 1111).

Passive nonrespondents

Rogelberg et al.'s (2003) study indicated that respondents do not differ from passive nonrepondents on satisfaction with the organization's leadership, satisfaction with life-areas outside of the organization, or intentions to leave the organization. They wrote "We acknowledge that we are in effect accepting a null hypothesis (which is problematic). However, the satisfaction and leaving intention means for passive nonrespondents and respondents are so close that they indicate little difference" (Rogelberg et al., 2003, p. 1112).

- "*Measurement error* [is the result of] questions that were misunderstood or incorrectly answered" (Dillman, 2000, p. 197).

Concepts applied to the 2003 CA

- *Coverage error* — Depended heavily on the quality of the lists from Air Force Personnel Center. Although the quality was not systematically tested, it probably had a modest effect on the generalizability. AF estimates are that approximately 10% of emails using the global directory address conventions do not reach the member.
- *Sampling error* — The sample sizes at most bases were sufficiently large to have relatively small confidence intervals.
- "*Nonresponse error*" — Examination of the 2003 CA data presented in this report indicate that there tended to be moderate nonresponse effects when comparing rank x sex for AD members and spouses to known population parameters. However, nonresponse error is problematic only if respondents differ from nonrespondents in a way *relevant to*

[1] We have conducted extensive literature reviews and can find no empirical support for this rule-of-thumb.

the study. Unfortunately, such variables are not available at the population level, leaving us without data to investigate the size of the effect of nonresponse.

However, recent research on nonresponse indicates that it is unlikely that nonresponse to the 2003 CA led to high levels of nonresponse *error*. If the AF is like other organizations, active nonresponse to the CA was probably about 10%. The remaining 90% of nonrespondents were likely passive nonrespondents, who are likely to be highly similar to respondents on most CA variables of interest[2]. Thus, lower than ideal response rates, it is likely that nonresponse error did not make 2003 CA data unrepresentative of the population.

- *Measurement error* — This has not been systematically studied in the CA, although one can surmise, given the high face validity of the study, that measurement error will be modest.

Recommendation made to the AF

The 2006 CA should still attempt for as high response rates as possible. Many excellent recommendations for maximizing response rates can be found in Dillman (2000). Furthermore, the AF should consider assessing types of nonresponse. For example, an initial email (to AD members) or postcard (to spouses) could be sent before the actual CA, asking the respondent (a) whether s/he intended to respond and (b) a few key questions that could be compared to those found in the CA that are most central to the constructs assessed (e.g., satisfaction with the AF, satisfaction with the base community).

Task 3: Begin planning for re-administration of CA and supplement

This task proceeds on schedule. On 7-Mar-05, the NORTH STAR Air Force Staff Package was approved and signed by Maj. Gen. Kevin Chilton, Acting Assistant Vice Chief of Staff of the Air Force. The package had already been approved by the AF Surgeon General, Judge Advocate General, Chief of Chaplains, Chief of Personnel and the Director of Air Force Services.
We have been talking weekly with Lt. Col. (s) Jim Whitworth about specific survey logistics. The plan is to be presented to the AF-IDS in April, 2005 and the Statement of Work developed later this spring.

KEY RESEARCH ACCOMPLISHMENTS:

- *Developed estimation algorithms for all secretive problems.*
- *Updated Guidebook to Activities that Work (i.e., the document that guides bases' selection of their prevention activities).*
- *Administered CA+ at Kadena 2004 CA+*: We added a fourth base to the NORTH STAR project. The Kadena CA+ was active from 18-Oct-04 – 12-Dec-04 and was completed by

[2] Rogelberg et al.'s (2003, p. 1113) conclusions are particularly piquant: "Some research suggests that the substantive conclusions to a survey often remain unaltered by an improved response rate (e.g., Traugott, Groves, & Lepkowski, 1987). We would claim that the higher response rates are just picking up passive nonrespondents, which, for attitude purposes, are not the nonrespondents affecting bias. As a result, one may argue that preventing passive nonresponse, given that it does not lead to bias on satisfaction variables, is not critical. Although we agree within this sentiment on one level, we would suggest that it is useful to increase the size of this group for statistical power and data credibility reasons. Furthermore, if variables related to passive nonresponse (e.g., conscientiousness) are related to the survey content of interest, researchers should actively encourage response.

1299 AD members and 233 spouses.

- *Supported bases creating Community Action Plans for NORTH STAR prevention activities.* See activities described above.

REPORTABLE OUTCOMES:

Presentations of survey results have been limited to semi-annual Air Force research meetings. The Guidebook and Training Manual were included in the 2004 report, and the website has been maintained. Based on this research we have applied for the following funding through the PRMRP FY05 announcement:

1. Family Maltreatment, Substance Problems, and Suicidality: Prevalence Surveillance and Risk/Protective Factors (Slep, PI)
2. Family Maltreatment, Substance Problems, and Suicidality: Randomized Prevention Effectiveness Trial (Heyman, PI)

Upcoming presentation: Dr. Heyman has been asked to be a visiting scholar for two weeks at Griffith University in Brisbane, Australia to present colloquia on NORTH STAR and to consult on community prevention (based on our PRMRP-funded experience). The colloquia are entitled:

1. "Community-based prevention for family maltreatment, alcohol abuse, drug use, and suicidality"
2. "Engaging communities in prevention activities: Lessons from work with the US Air Force"

CONCLUSIONS:

We are quite encouraged about the progress made in the pilot phase. The pilot bases appear to have the prerequisites to implement effectively a modern prevention initiative. Base IDS teams were very receptive to the NORTH STAR framework and are making good progress in designing and implementing empirically-supported action plans. The goals set out by PRMRP reviewers for the first phase of the project are being achieved.

Risk and Protective factors: Table 2 summarizes the significant relations between these factors and specific secretive problems.

Table 2. *Significant relations between risk/protective factors and secretive problems*

					Child Abuse		Partner Physical Abuse		Partner Emo. Abuse	
	Alcohol Problems	Prescr. Drug Misuse	Illicit Drug Use	Suicidality	Phys.	Emo.	♂-to-♀	♀-to-♂	♂-to-♀	♀-to-♂
Ability of spouse to cope with deployment	4			4			4	4	4	
Availability of instrumental social support				4		4			4	4
Availability of support from formal agencies										4
Community safety	4		4	4						4
Community stressors/problems				4			4	4		4
Community support for youth								4		
Community unity/responsibility	4		4	4				4		4
Depressive symptomatology	4		4	4		4	4	4	4	4
Family adaptation			4	4	4	4	4	4	4	4
Financial stress	4		4	4			4	4		
Job stressors and demands	4			4						
Parenting satisfaction				4		4	4		4	
Personal coping	4	4	4	4		4		4	4	4
Physical well-being				4					4	4
Relationship satisfaction			4	4	4		4	4	4	4
Satisfaction with community	4		4	4		4			4	4
Satisfaction with support from leadership	4		4	4			4	4		4
Satisfaction with way of life associated with AF	4		4	4				4	4	
Spiritual well-being/involvement	4			4						
Support from neighbors	4			4						
Support from significant other		4	4	4				4	4	
Work group cohesion	4		4	4			4			
Work relationships satisfaction				4				4		4

As shown in Table 3 below, the annual prevalence of secretive problems was 24.95%. Befitting the "secretive" moniker, only 1 in 6 of members with secretive problems let anyone in the AF (including friends) know that they are having difficulties. If the prevalences from the four pilot bases were extrapolated to the entire AF, this would mean that 73,289 AD members had a serious secretive problem in the last year (10,815 known in some way to the community and 61,488 not known to the community). We should note that AD members in roles requiring more intensive screening (Personnel Reliability Program, flight status, special security clearance) nevertheless reported equivalent prevalences to the overall AD population (e.g., 24.28% reported at least one secretive problem).

Table 3. *Prevalences of Secretive Problems*

Secretive Problem	Annual Prevalence	Extrapolated AF Estimate
Any secretive problem listed below	24.95%	73,289 AD members
Alcohol problems	11.85%	34,816 AD members
Controlled prescription drug misuse	1.94%	5,699 AD members
Illicit drug use	0.51%	1,483 AD members
Suicidality	5.77%	16,934 AD members
Partner physical abuse	1.80% (abuse of ♀); 1.38% (abuse of ♂)	3,966 & 3,029 AF couples
Partner emotional abuse	7.63% (abuse of ♀); 8.71% (abuse of ♂)	16,810& 19,183 AF couples
Child physical abuse	8.05%	13,010 AF families
Child emotional abuse	8.75%	14,136 AF families

➢ *Implications.* We derive the following implications from the CA+ pilot prevalence results:

- Secretive problems are prevalent in the AF.
- Most members with secretive problems are not identified as such to the AF community.
- Many respondents are willing to report secretive problems on anonymous surveys. Furthermore, affirmative responses at these prevalence rates make the planned data analyses feasible and highlight the importance of community-based intervention.

However, there are numerous reasons why respondents might not admit to secretive problems when they do in fact exist. Thus, these rates should be considered the lower estimated bounds of the true prevalences. By trying to reduce community risk/protective factors rather than drive individuals into programs, NORTH STAR has a reasonable chance of impacting even those who are not willing to report secretive problems on a survey.

REFERENCES:

Dillman, D. A. (2000). *Mail and internet surveys (2nd ed.)*. New York: Wiley.

Rogelberg, S. G., Luong, A., Sederburg, M. E. & Cristol, D. S. (2000). Employee attitude surveys: Examining the attitudes of noncompliant employees. *Journal of Applied Psychology, 85*, 284-293.

Rogelberg, S. G., Conway, J. M., Sederburg, M. E., Spitzmüller, C., Aziz, S., & Knight, W. E. (2003). Profiling active and passive nonrespondents to an organizational survey. *Journal of Applied Psychology, 88*, 1104-1114.Sosdian & Sharp, 1980

Sosdian, C. P. & Sharp, L. M. (1980). Nonresponse in mail surveys: Access failure or respondent resistance. *Public Opinion Quarterly, 44*, 396-402.

Youssefnia, D. (2000, April). *Examining organizational survey response quality with OCB related job attitudes*. Paper presented at the annual convention of the Society for Industrial and Organizational Psychology, New Orleans, LA.

APPENDICES: No applicable at this time